

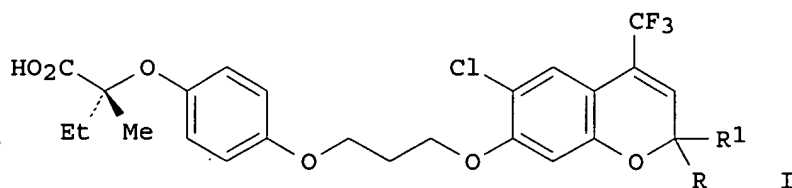
# STN- Structure Search

10/20/06

10/522,646

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L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2006:128520 CAPLUS  
 DOCUMENT NUMBER: 144:362557  
 TITLE: Design and synthesis of potent and subtype-selective PPAR $\alpha$  agonists  
 AUTHOR(S): Desai, Ranjit C.; Metzger, Edward; Santini, Conrad; Meinke, Peter T.; Heck, James V.; Berger, Joel P.; MacNaul, Karen L.; Cai, Tian-quan; Wright, Samuel D.; Agrawal, Arun; Moller, David E.; Sahoo, Soumya P.  
 CORPORATE SOURCE: Department of Medicinal Chemistry, Merck Research Laboratories, Rahway, NJ, 07065, USA  
 SOURCE: Bioorganic & Medicinal Chemistry Letters (2006), 16(6), 1673-1678  
 CODEN: BMCLE8; ISSN: 0960-894X  
 PUBLISHER: Elsevier B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 144:362557  
 GI



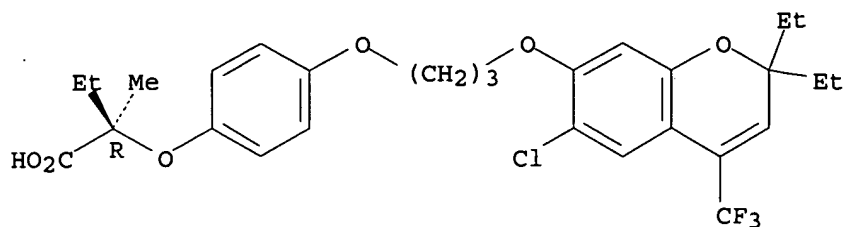
AB Nonracemic aryloxypropoxyphenoxyisobutyric acids and aryloxypropoxyphenoxybutanoic acids such as I (RR1 = O or R = R1 = Me) are prepared as selective human PPAR $\alpha$  agonists for use as antihypercholesteremic and hypolipemic agents; I (R = R1 = Me) is a particularly potent antihypercholesteremic and hypolipemic agent both alone and in combination with simvastatin. The aryloxypropoxyphenoxyisobutyric acids and aryloxypropoxyphenoxybutanoic acids are generated by structural modification of an aryloxypropoxyphenyl thiazolidinedione and replacement of the thiazolidinedione moiety with the carboxylic acid moiety present in fibrates. The effects of changes in both the substituents neighboring the carboxylic acid moiety and in the pendant aryl groups on the selectivity and affinity of aryloxypropoxyphenoxyisobutyric acids and aryloxypropoxyphenoxybutanoic acids for PPAR $\alpha$  are determined. The pharmacokinetics of I (R = R1 = Me; RR1 = O) in rats, dogs, and monkeys are determined.

IT 653563-72-5P 653563-73-6P 882176-29-6P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (preparation of aryloxypropoxyphenylisobutyric and aryloxypropoxyphenylbutanoic acids as selective human PPAR $\alpha$  agonists for use as hypolipemic and antihypercholesteremic agents)

RN 653563-72-5 CAPLUS  
 CN Butanoic acid, 2-[4-[3-[[6-chloro-2,2-diethyl-4-(trifluoromethyl)-2H-1-benzopyran-7-yl]oxy]propoxy]phenoxy]-2-methyl-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

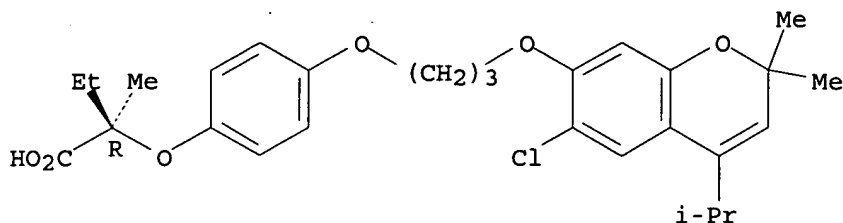
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RN 653563-73-6 CAPLUS

CN Butanoic acid, 2-[4-[3-[[6-chloro-2,2-dimethyl-4-(1-methylethyl)-2H-1-benzopyran-7-yl]oxy]propoxy]phenoxy]-2-methyl-, (2R)- (9CI) (CA INDEX NAME)

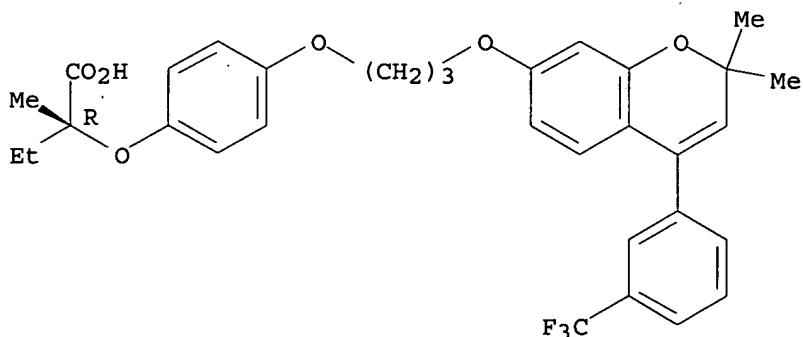
Absolute stereochemistry.



RN 882176-29-6 CAPLUS

CN Butanoic acid, 2-[4-[3-[[2,2-dimethyl-4-[3-(trifluoromethyl)phenyl]-2H-1-benzopyran-7-yl]oxy]propoxy]phenoxy]-2-methyl-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



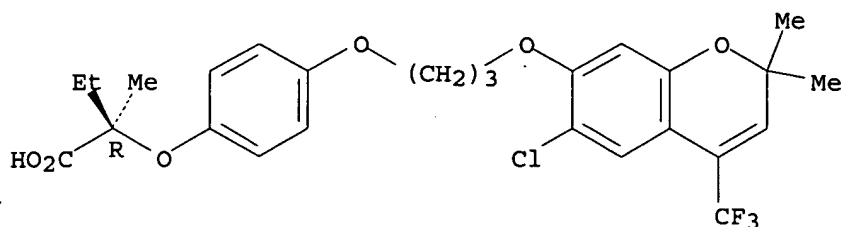
IT 653563-66-7P

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation, selective human PPAR $\alpha$  agonism, hypolipemic and antihypercholesteremic activities, and pharmacokinetics of nonracemic aryloxypropoxyphenylbutanoic acids)

RN 653563-66-7 CAPLUS

CN Butanoic acid, 2-[4-[3-[[6-chloro-2,2-dimethyl-4-(trifluoromethyl)-2H-1-benzopyran-7-yl]oxy]propoxy]phenoxy]-2-methyl-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:100986 CAPLUS

DOCUMENT NUMBER: 140:157460

TITLE: PPAR $\alpha$ -selective chromane and chromene compounds for the treatment of dyslipidemia and other lipid disorders, and preparation thereof

INVENTOR(S): Desai, Ranjit C.; Sahoo, Soumya

PATENT ASSIGNEE(S): Merck & Co., Inc., USA

SOURCE: PCT Int. Appl., 57 pp.

CODEN: PIXXD2

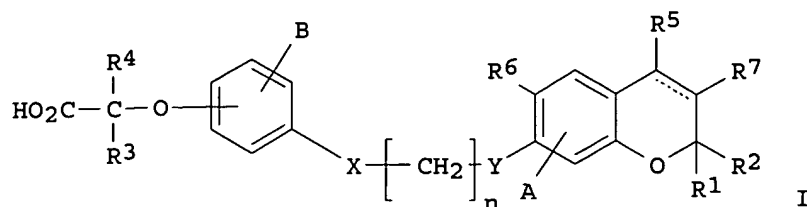
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004010992	A1	20040205	WO 2003-US23499	20030725
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2493913	AA	20040205	CA 2003-2493913	20030725
AU 2003256911	A1	20040216	AU 2003-256911	20030725
EP 1539137	A1	20050615	EP 2003-771947	20030725
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005538109	T2	20051215	JP 2004-524924	20030725
US 2006089404	A1	20060427	US 2005-522646	20050926
PRIORITY APPLN. INFO.:			US 2002-399518P	P 20020730
			WO 2003-US23499	W 20030725
OTHER SOURCE(S):			MARPAT 140:157460	
GI				



AB A class of chromane and chromene compds. I [R1, R2, R4 = (un)substituted C1-3 alkyl; R3, R5, R7 = H, (un)substituted C1-3 alkyl; R6 = H, Cl, Me, CF3; A, B = H, Cl, F, Me, CF3; X, Y = O, S; n = 2, 3; dashed line = optional double bond], and pharmaceutically acceptable salts thereof, are useful as therapeutic compds., particularly in the treatment and control of hyperlipidemia, hypercholesterolemia, dyslipidemia, and other lipid disorders, and in delaying the onset of or reducing the risk of conditions and sequelae that are associated with these diseases, such as atherosclerosis. Compound preparation is included.

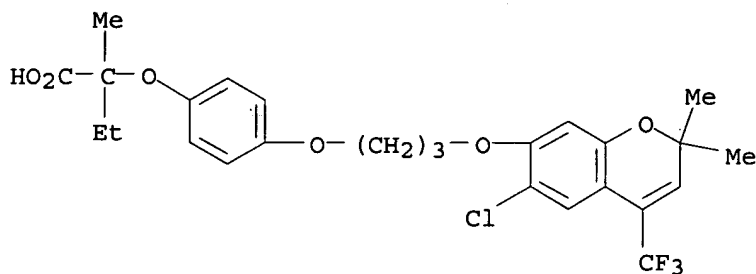
IT 653563-65-6P 653563-66-7P 653563-67-8P  
653563-68-9P 653563-69-0P 653563-70-3P  
653563-71-4P 653563-72-5P 653563-73-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(PPAR $\alpha$ -selective chromane and chromene compds. for treatment of lipid disorders, preparation, and use with other agents)

RN 653563-65-6 CAPLUS

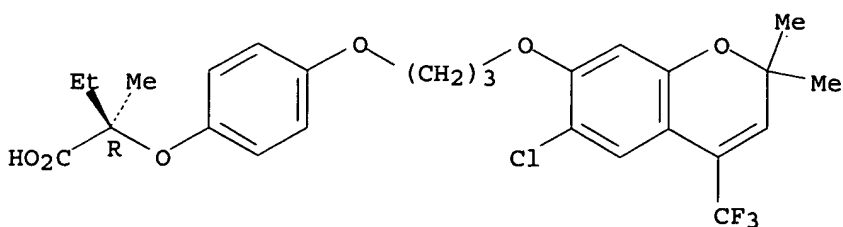
CN Butanoic acid, 2-[4-[3-[[6-chloro-2,2-dimethyl-4-(trifluoromethyl)-2H-1-benzopyran-7-yl]oxy]propoxy]phenoxy]-2-methyl- (9CI) (CA INDEX NAME)



RN 653563-66-7 CAPLUS

CN Butanoic acid, 2-[4-[3-[[6-chloro-2,2-dimethyl-4-(trifluoromethyl)-2H-1-benzopyran-7-yl]oxy]propoxy]phenoxy]-2-methyl-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

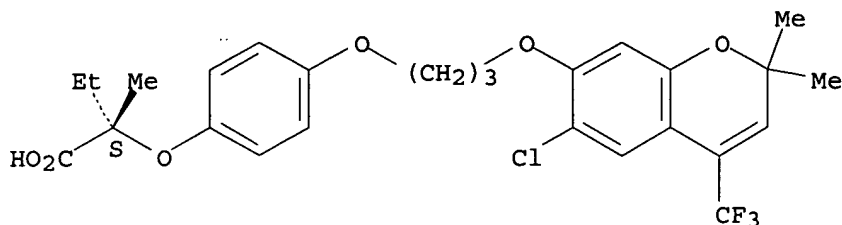


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CN Butanoic acid, 2-[4-[3-[[6-chloro-2,2-dimethyl-4-(trifluoromethyl)-2H-1-benzopyran-7-yl]oxy]propoxy]phenoxy]-2-methyl-, (2S)- (9CI) (CA INDEX NAME)

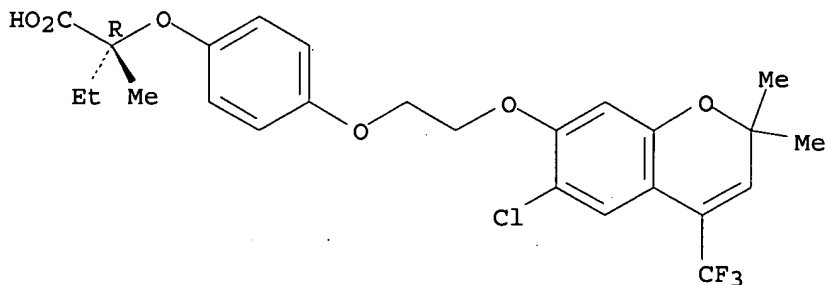
Absolute stereochemistry.



RN 653563-68-9 CAPLUS

CN Butanoic acid, 2-[4-[2-[[6-chloro-2,2-dimethyl-4-(trifluoromethyl)-2H-1-benzopyran-7-yl]oxy]ethoxy]phenoxy]-2-methyl-, (2R)- (9CI) (CA INDEX NAME)

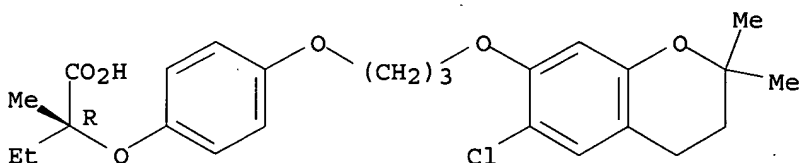
Absolute stereochemistry.



RN 653563-69-0 CAPLUS

CN Butanoic acid, 2-[4-[3-[[6-chloro-3,4-dihydro-2,2-dimethyl-2H-1-benzopyran-7-yl]oxy]propoxy]phenoxy]-2-methyl-, (2R)- (9CI) (CA INDEX NAME)

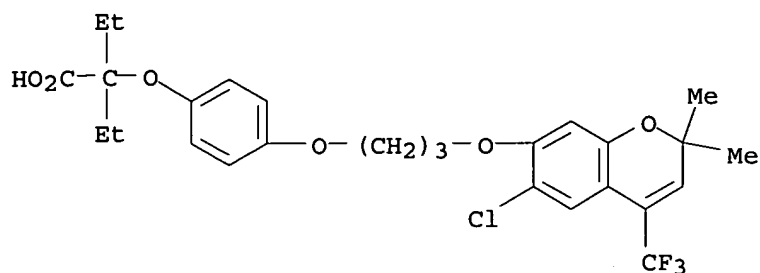
Absolute stereochemistry.



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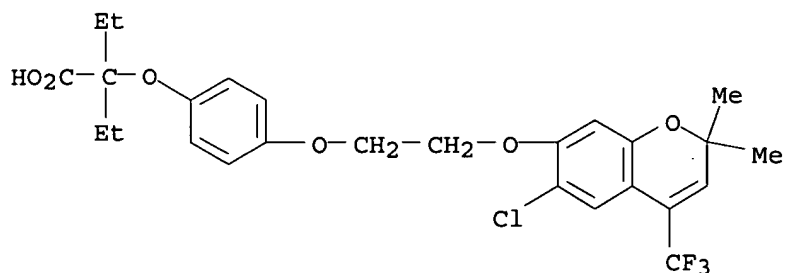
CN Butanoic acid, 2-[4-[3-[[6-chloro-2,2-dimethyl-4-(trifluoromethyl)-2H-1-benzopyran-7-yl]oxy]propoxy]phenoxy]-2-ethyl-, (9CI) (CA INDEX NAME)

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RN 653563-71-4 CAPLUS

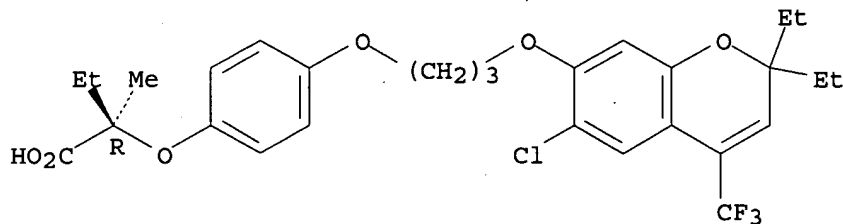
CN Butanoic acid, 2-[4-[2-[[6-chloro-2,2-dimethyl-4-(trifluoromethyl)-2H-1-benzopyran-7-yl]oxy]ethoxy]phenoxy]-2-ethyl- (9CI) (CA INDEX NAME)



RN 653563-72-5 CAPLUS

CN Butanoic acid, 2-[4-[3-[[6-chloro-2,2-diethyl-4-(trifluoromethyl)-2H-1-benzopyran-7-yl]oxy]propoxy]phenoxy]-2-methyl-, (2R)- (9CI) (CA INDEX NAME)

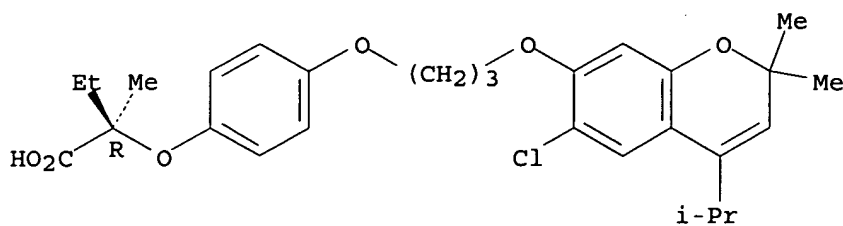
Absolute stereochemistry.



RN 653563-73-6 CAPLUS

CN Butanoic acid, 2-[4-[3-[[6-chloro-2,2-dimethyl-4-(1-methylethyl)-2H-1-benzopyran-7-yl]oxy]propoxy]phenoxy]-2-methyl-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



10/522,646

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d re 1-2

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN  
RE

- (1) Adams, A; Bioorg Med Chem Lett 2003, V12, P931
- (2) Anum, E; Ann Epidemiol 2004, V14, P705
- (3) Berger, J; J Biol Chem 1999, V274, P6718 CAPLUS
- (4) Brown, P; Bioorg Med Chem Lett 2001, V11, P1225 CAPLUS
- (5) Brown, P; J Med Chem 1999, V423, P3785
- (6) Desai, R; WO 2004/010992 A1 CAPLUS
- (7) Desai, R; Bioorg Med Chem Lett 2005, V13, P2795
- (8) Desai, R; Bioorg Med Chem Lett 2005, V13, P3541
- (9) Koyam, H; Bioorg Med Chem Lett 2005, V15, P3347
- (10) Nomura, M; J Med Chem 2003, V46, P3581 CAPLUS
- (11) Shi, G; J Med Chem 2005, V48, P5589 CAPLUS
- (12) Staels, B; Circulation 1998, V89, P2088
- (13) Staels, B; Curr Pharm Des 1997, V3, P1 CAPLUS
- (14) The Cambridge Crystallographic Data Centre; [www.ccdc.cam.ac.uk/data\\_request/cif](http://www.ccdc.cam.ac.uk/data_request/cif)
- (15) Xu, Y; J Med Chem 2003, V46, P5121 CAPLUS

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN  
RE

- (1) Merck & Co Inc; WO 0226729 A2 2002 CAPLUS
- (2) Miyano; US 4565882 A 1986 CAPLUS

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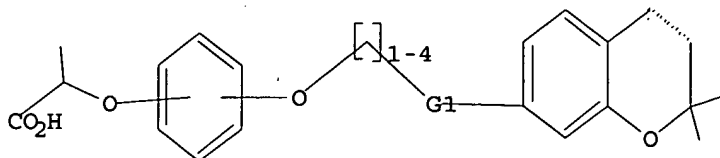
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L1 HAS NO ANSWERS

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L1 STRUCTURE UPLOADED

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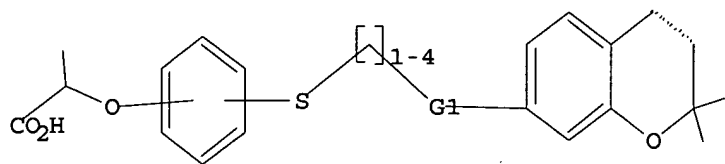
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L5 HAS NO ANSWERS

L5 STR



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